

TRANSACTIONS OF THE ROYAL SOCIETY OF SOUTH AUSTRALIA INCORPORATED

STUDIES IN AUSTRALIAN LEPIDOPTERA

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I am indebted to Mr. T. Bainbridge Fletcher for pointing out that we have been using some generic names which have been preoccupied, and for which new names must be substituted. For instance, *Macraeola* Meyr. (Tineidae 1893) must give place to *Tenaga* Clem. (1862). He has also substituted *Thalamarchella* for *Thalamarchis*.

I propose the following changes:—

for *Palaeoneura* Turn. 1923 (Tineidae). *Archaeoneura*.

Lophozancla Turn. 1933 (Gelechiidae). *Phaeotypa*. (φαιοτυπος, with dark markings.)

Idiozancla Turn. 1936. (Oecophoridae). *Phobetica*. (φοβητικός, timid.)

Stenophara Turn. 1940. (Oecophoridae.) *Ischnophara*.

Fam. NOTODONTIDAE

Gallaba diplosticha n. sp.

διπλοστιχος, with double lines.

♂, 40-44 mm.; ♀, 35-40 mm. Head and thorax grey-whitish sprinkled with fuscous; face whitish. Palpi whitish, outer surface of second joint except apex dark fuscous. Antennae grey-whitish; pectinations in male 6, in female 1½. Abdomen whitish-grey. Legs whitish sprinkled with fuscous; inner surface and tarsal rings of anterior and middle pairs dark fuscous. Forewings sub-oblong, narrow, costa in male slightly sinuate, in female slightly arched, apex sub-rectangular, termen rounded, slightly oblique; grey mixed with whitish and sparsely sprinkled with fuscous; markings fuscous; a double line from base to one-sixth costa; another from one-third costa to one-fourth dorsum, slightly waved, indented above dorsum; a single sinuate median transverse line; a double wavy line from two-thirds costa to two-thirds dorsum; an interrupted subterminal line; orbicular and reniform represented by white spots partly outlined with fuscous, the former round, the latter elongate, almost linear, on the posterior edge of median line; cilia grey, apices whitish. Hindwings of male very broad, rounded, with a tuft of long hairs from near base of costa, in female moderate with apex pointed and termen sinuate; 6 and 7 coincident in male, stalked in female; pale fuscous with whitish suffusion towards base; cilia whitish, bases pale fuscous. In one female there is an irregular blackish subdorsal streak from base.

Western Australia: Margaret River in October; Albany in March; Denmark in November and April; Perth; seven specimens, of which three are in the Queensland Museum.

Fam. OENOCHROMIDAE

Taxeotis homoeopa n. sp.

ὁμοιωπος, similar.

♂, 19-22 mm. Head grey; face blackish. Palpi 1¼; blackish, sharply white towards base beneath. Antennae grey; ciliations one-half. Thorax,

abdomen, and legs grey. Forewings triangular, costa nearly straight, apex pointed, termen straight, oblique; grey with a few scattered fuscous scales; markings fuscous; dark costal spots at one-third and two-thirds; a dorsal dot at one-fourth, and another in disc midway between this and first costal; a small medium discal dot; a subterminal series of spots more or less connected and obscured by fuscous irroration and preceded by a parallel line not reaching costa of ferruginous dots with fuscous centres; terminal edge pale with a series of dark fuscous dots; cilia grey with fuscous points. Hindwings with termen rounded; colour, terminal dots, and cilia as forewings; a short transverse fuscous line from three-fifths dorsum.

♀, 19-24 mm. Palpi 1 $\frac{3}{4}$. Forewings with apex acute; markings much more obscure and often partly obsolete.

Most nearly resembling *T. blechra* Turn. from Western Australia, but the male differs in the darkly suffused subterminal line preceded by ferruginous dots on forewings. The female of *T. blechra* often has minute transverse strigulae over both wings.

Queensland: Cunnamulla in October; six specimens.

PHRATARIA Wlk.

Walker 1862, 35, 1700.

Westwood (1841) made the genus *Epidesmia* for *tricolor* Westw. Walker (1862) made *Phrataria* for *replicataria* Wlk., 35, 1700. Meyrick (1890) sank Walker's genus to *Epidesmia*, and at the same time described *Satraparchis* for *bijugata*, overlooking the fact that these species agreed in neuration. The genus *Phrataria* must be restored. It differs from *Epidesmia* essentially in the stalking of 3 and 4 of the forewings, and contains *replicataria* Wlk.? *transcissata* Wlk., *bijugata* Wlk., and the following species.

Phrataria V-album n. sp.

V-album, marked with a white V.

♂, 24 mm. Head, palpi and thorax fuscous. Antennae fuscous; pectinations in male, four. Abdomen grey. Legs fuscous. Forewings triangular, costa moderately arched, apex pointed, termen sinuate; fuscous; veins streaked with whitish-ochreous; a broad straight white line from just beneath midcosta to tornus, edged with dark fuscous, its dorsal portion preceded and followed by very fine whitish parallel lines; a white line from apex to termen just above tornus, obtusely bent inwards above middle; a slender white terminal line; cilia fuscous. Hindwings with termen rounded; grey; a slightly darker straight postmedian line; a faint whitish subterminal line from apex to tornus; a slender white terminal line; cilia grey.

Queensland: Milmerran in October; one specimen received from Mr. J. Macqueen.

Fam. SYNTOMIDAE

SYNTOMIS APERTA Wlk. 1864

Walker 1864, Cat. 31, 72.

Hydrusa nesothetis Meyr. 1886, Proc. Linn. Soc. N.S.W., 783.

Syntomis melitospila Turn, 1905, *ibid.*, 853; Hmps. 1914, Suppl. 1, 20, pl. ii, fig. 2.

Queensland: Gladstone, Eidsvold, Gayndah, Toowoomba, Dalby, Injune, Milmerran, Inglewood, Cunnamulla. New South Wales: Murrurundi, Hay.

ERESSA STREPSIMERIS Meyr. 1886

Meyr. 1886, *ibid.*, 786.

Eressa xanthostacta Hmps. 1903, Ann. Mag. Nat. Hist., (7), 11, 339.

Eressa stenothyris Turn. 1933, Trans. Roy. Soc. S. Aust., 57, 160.

North Queensland: Cape York, Cairns, Mount Mulligan, Townsville, Bowen, Queensland: Yeppoon.

ERESSA MEGALOSPILA Turn 1922

Turn. 1922, Proc. Roy. Soc. Vict., 28.

Eressa strepsimeris Hmps. 1914, Suppl. i, 47, *nec* Meyr. 1886, *ibid.*, 786.

North Australia: Darwin, Daly River.

Fam. ARCTIIDAE

Heliosia perichares n. sp.

περιχαρης, cheerful.

♂ ♀, 18 mm. Head and palpi orange-yellow. Antennae pale grey, towards base yellowish; ciliations in male 1. Thorax, anterior half orange-yellow, posterior half blackish. Forewings suboblong, costa moderately arched, apex rounded, termen oblique; orange-yellow with three blackish fasciae; first small, basal; second moderate, from one-third costa to mid-dorsum, margins wavy or straight, anterior edge with a slight prominence above middle, posterior leaving a narrow orange-yellow terminal strip, which may or may not extend to tornus; cilia blackish, towards apex of wing yellowish. Hindwings with termen rounded; 3 and 4 coincident; orange-yellow; a broad blackish terminal band; cilia blackish. Very similar to *H. charopa*, which has different neuration of hindwings, no basal fascia in forewings, and subterminal fascia differently shaped.

Queensland: Milmerran in October, November and December; three specimens received from Mr. J. Macqueen.

Halone nephobola n. sp.

νεφοβολος, overcast with clouds.

♂, 27-30 mm. Head and thorax fuscous sprinkled with whitish-ochreous. Palpi dark fuscous. Antennae fuscous; in male with tufts of moderate ciliations (1). Abdomen grey mixed with whitish-ochreous; tuft and underside ochreous. Legs ochreous with fuscous tarsal rings; posterior tibiae ochreous. Forewings triangular, costa strongly arched, apex round-pointed, termen nearly straight, oblique; whitish-ochreous sprinkled and suffused with fuscous, darker in central area; markings dark fuscous; a basal costal spot, from which proceeds a curved line ending on fold and enclosing a pale spot; shortly followed by a suffused line also from costa to fold; antemedian irregularly dentate from one-third costa to three-fifths dorsum; a pale-centred discal spot outlined with fuscous; postmedian from two-thirds costa, dentate, with a broad quadrangular projection from beneath costa to below middle; a broadly suffused interrupted subterminal line; cilia fuscous mixed with pale ochreous. Hindwings with termen gently rounded; orange-yellow; a fuscous apical spot; cilia yellow, on apex partly fuscous.

Allied to *H. sinuata* and *H. coryphaea*, but larger, differing in details of forewing markings, and without fuscous terminal line on hindwings.

Tasmania: Hobart in October (Dr. V. V. Hickman); two specimens taken at rest on the wall of the University. The larvae feed on lichens and pupate in crevices between the stones.

Philenora malthaca n. sp.

μαλθακος, gentle.

♀, 20 mm. Head whitish. Palpi and antennae fuscous. Thorax fuscous with anterior and posterior whitish spots. Abdomen grey. Legs fuscous; posterior pair whitish-ochreous. Forewings elongate-triangular, costa nearly straight, apex pointed, termen oblique; whitish suffused with fuscous, appearing grey; a transverse elongate whitish basal spot, separated by a fuscous line from a whitish fuscous-edged dorsal blotch, which extends nearly to middle; upper edge of blotch nearly straight, subcostal, posterior edge deeply indented, forming median and dorsal obtuse projections; an oblique fuscous line from midcosta to upper angle of blotch; a second oblique line from three-fourths costa to three-fourths dorsum, the costal portion of area between these lines whitish; an irregular sub-terminal fuscous fascia, indented posteriorly above middle, containing a whitish dorsal triangle, its apex produced to middle of disc; cilia fuscous with whitish bars. Hindwings broad, termen rounded; pale ochreous; a pale fuscous apical blotch tolerably well defined; cilia pale ochreous, on blotch fuscous.

New South Wales: Newport, near Sydney, in September; one specimen received from Mr. J. Macqueen.

Fam. NOCTUIDAE

Subfam. MELANCHRINAE

MELIANA SCOTTI Butl. 1886

Butl. 1886, Trans. Ent. Soc., 391; Hmps. 1905, 5, 95, pl. xcv, fig. 22.

Leucania melanopasta Turn. 1902, Proc. Linn. Soc. N.S.W., 81.

Borolia microsticta Turn. 1909, *ibid.*, 341.

Male with mid-tibiae densely clothed throughout with long hairs on ventral surface. Lateral hair-tufts on penultimate abdominal segment. Antennae with short ciliations (one-half) and longer bristles (1). Both sexes with posterior tibiae smooth.

North Australia: Darwin. Queensland: Cape York to Brisbane. North-west Australia: Wyndham.

MELIANA LEWINII Butl. 1886

Butl. 1886, Trans. Ent. Soc., 390; Hmps. 1905, 5, 556.

M. similis Butl. 1886, *ibid.*, 392.

M. xylogramma Meyr. 1897, Trans. Ent. Soc., 367.

Peak Downs to Sydney.

Subfam. ACRONYCTINAE

Acronycta anceps n. sp.

anceps, two-headed.

♂, 32-40 mm. Head and thorax fuscous-brown mixed with whitish; thorax with a slender fuscous transverse antemedian line. Palpi reaching vertex, terminal joint short, obtuse; fuscous-brown. Antennae fuscous; in male shortly ciliated (one-half). Abdomen grey. Legs fuscous-brown with whitish tarsal rings. Forewings elongate-triangular, costa nearly straight, apex rounded, termen rounded, oblique; fuscous-brown with some whitish suffusion; markings fuscous; an ill-defined sub-basal line; a slender blackish sub-dorsal line from near base to one-fourth; orbicular obsolete; reniform outlined with whitish, narrow, oblique, its lower extremity connected by an inwardly curved line with two-thirds dorsum; a suffused oblique line from midcosta to lower extremity of reniform, thence outwards, blackish, and soon dividing into two heads, running respectively to dorsum

above tornus and termen below middle; three whitish costal dots beyond middle; some whitish subapical suffusion; subterminal line obsolete or indicated by some blackish dots; cilia fuscous with slender whitish bars. Hindwings with termen rounded, slightly wavy; 5 obsolescent from below middle of cell (one-third); fuscous with a large suffused whitish basal blotch; cilia fuscous, becoming whitish towards tornus.

North Queensland: Kuranda in March; two specimens received from Mr. F. P. Dodd.

Namangana eugraphica n. sp.

εὐγραφικός, well inscribed.

♂, 35 mm. Head, palpi, thorax, and abdomen pale grey. Antennae grey-whitish; in male bipectinate almost to apex, pectinations 2. Leg. grey-whitish; anterior tarsi dark fuscous with whitish rings. Forewings elongate-triangular, costa almost straight, apex rounded-rectangular, termen rounded slightly oblique; grey-whitish; markings fuscous, very clear and distinct; four strigules on basal fifth of costa; a sub-basal median dot; a double wavy transverse line at one-fifth; claviform long, U-shaped; orbicular outlined, broadly oval; reniform outlined, large, connected with dorsum by a dentate line; a dot on mid-costa; postmedian line double, finely dentate, from two-thirds costa outwards, curved beneath costa to become transverse, ending on dorsum near tornus; a finely dentate subterminal line; a terminal series of blackish dots; cilia grey-whitish with two faintly darker lines. Hindwings with termen gently rounded; white; a slender fuscous terminal line; cilia white.

Queensland: Cunnamulla in April; one specimen received from Mr. N. Geary.

NAMAGANA HOROLOGA (Meyr. 1897)

Meyr. 1897, Trans. Ent. Soc., 367 (*Orthosia*).

Prometopus horologa Hmps. 1909, 8, 369, pl. cxxxix, fig. 7.

I think this species is best placed here.

Eidsvold to Melbourne, Clermont, Scone, Charleville.

Barybela n. gen.

βαρυβελος, with heavy palpi.

Tongue strong. Face not projecting. Palpi ascending, rather long, clothed with appressed scales; second joint much thickened, reaching middle of face; terminal joint moderate, obtuse. Thorax with a moderate posterior bifid crest. Abdomen with dorsal crest on basal segment. Posterior tibiae mostly smooth but with short hairs on dorsum. Hindwings with 5 obsolescent from well below middle. Apparently allied to *Namangana*, but with different palpi.

Barybela chionostigma n. sp.

χιονοστιγμος, with white spots.

♀, 30 mm. Head and thorax dark fuscous with a few whitish scales. Palpi 2; dark fuscous, bases of second and terminal joints and a few scales whitish. Antennae dark fuscous. Abdomen whitish heavily sprinkled with fuscous. Legs dark fuscous; apices of tibiae and tarsal joints white. Forewings elongate-triangular, costa straight, apex rectangular, termen slightly rounded, scarcely oblique; dark fuscous with a few whitish scales towards costa, markings white, a mid-basal spot; three or four minute costal dots beyond middle, orbicular a snow-white dot at one-third; reniform a snow-white ring incomplete on costal edge; cilia dark fuscous with obscure grey bars. Hindwings with termen rounded; grey; cilia grey, bases whitish.

Western Australia: Yanchep, in November; one specimen.

MACROPRORA Turn. 1941

Turn. 1941 (June), Mem. Qld. Mus., 12, 48.

Conocrana Turn. 1941 (August), Proc. Roy. Soc. Qld., 72 (type *C. ochthera* Turn., *ibid.*).

A characteristic feature of this genus, not mentioned in my description, is the large erect dorsal crest on the fourth abdominal segment. Type, *M. chionobola* Turn., *ibid.* To this genus should be referred *M. oostigma* Turn. 1929, Trans. Roy. Soc. S. Aust., 53, 302, and *M. symprepes*, both of which were described as of the genus *Crypsiprora*, Trans. Ent. Soc., 1902, 29.

The genus *Conocrana* becomes a synonym.

MACROPRORA CHIONOBOLA Turn. 1941

Turn. 1941 (June), Mem. Qld. Mus., 12, 48.

Conocrana ochthera Turn. 1941 (August), Proc. Roy. Soc. Qld.

EUPRORA Hmps. 1926

New Gen. and Sp. Noct. 1926, 88.

Tongue strong. Face with moderate smooth rounded prominence. Palpi porrect, slender; second joint reaching to facial prominence, shortly rough-scaled; terminal joint short. Thorax and abdomen not crested. Tibiae hairy. Forewings elongate, narrow at base, posteriorly dilated; 2 from three-fourths, 7, 8, 9 stalked from areole, which is short and broad. Hindwings with 5 from middle of cell, weakly developed except towards termen, 12 anastomosing with cell near base. Type, *E. lichenophora*.

This genus should be referred to the Acronyctinae. It agrees in wing-shape and is probably akin to the following genus, which differs in palpi, neuration of forewings, and smooth legs.

EUPRORA LICHENOPHORA Low. 1902

Low. 1902, Trans. Roy. Soc. S. Aust., 26, 224.

Victoria: Gisborne.

Litoscelis n. gen.

λιτοσκελις, smooth-legged.

Tongue strong. Face with moderate smooth rounded prominence. Palpi smooth, porrect; second joint very much thickened; terminal joint minute. Thorax and abdomen not crested. Tibiae smooth. Forewings elongate, strongly dilated; 2 from two-thirds, areole short and broad, 7 arising from it separately. Hindwings with 5 obsolescent from middle of cell, 12 closely approximated to cell to beyond middle.

LITOSCELIS TANYPHYLLA Turn. 1929

Turn. 1929, Trans. Roy. Soc. S. Aust., 53, 304.

North Queensland: Cairns, Atherton.

EREMAULA Turn. 1941

Proc. Roy. Soc. Qld., 74.

My definition needs amendment. In the type specimen the thorax was abraded, but in another I find a moderate smooth rounded posterior crest. There is also a small crest on the first abdominal segment. The origin of 5 of the hindwings from below the middle is correct for the type, but in two other examples it is median.

EREMAULA MINOR (Butl. 1886)

Butl. 1886, Trans. Ent. Soc., 397; Hmps. 1909, 8, 547, pl. cxxxvi, fig. 31 (*Crambodes*).

This species cannot be referred to *Namangana* (Staud. 1888, Ent. Zeit., 49, 28; Hmp., 8, 541). *E. ptilopleura* Turn. 1941 is a synonym.

Queensland: Peak Downs; Injune; Cunnamulla.

Bathytricha aethalion n. sp.

αιθαλιων, dusky.

♂, 38 mm. Head, palpi, thorax, abdomen, and legs fuscous. Antennae grey; pectinations in male 1. Forewings elongate-triangular, costa nearly straight, apex rounded, termen rounded, oblique; dark grey with dark fuscous dots; three dots in a transverse line at one-third; a series of dots in a sinuate line at three-fourths; a suprmedian dot displaced inwards; a terminal series of dots; cilia dark grey. Hindwings with termen sinuate; cilia grey-whitish with a darker median line. Closely similar with *B. truncata* Wlk., except that in the hindwings vein 5, which is weakly developed, is not approximated at base to 4, but straight and arising from middle of cell.

Victoria: Orbost; the larvae feeding on maize stems (W. V. Ludbrook); one specimen.

ARIATHISA

Wlk. 1865 33, 747; Hmps., Cat. Lep. Phal., 1909, 8, 383.

Tongue strong. Face not projecting. Palpi ascending, second joint thickened with appressed scales, somewhat rough anteriorly; terminal joint short, obtuse. Thorax with a small bifid posterior crest; tegulae rather large. Abdomen without crests but with lateral tufts of hair directed towards middle. Posterior tibiae hairy. Neuration normal.

To this genus I refer all the species formerly included by me in *Caradrina*, Trans. Roy. Soc. S. Aust., 1920, 44, 154, except *C. obtusa* Hmps., Ill. Het. B.M., 8, 29, pl. cxlv, fig. 6, and *C. maculatra* Low. 1891, Proc. Linn. Soc. N.S.W., 1902, 657. Two species, including the type, are known from Africa, one from New Zealand and one from Fiji, but there are many in Australia. Their discrimination is often difficult. In addition to a certain amount of variability some show sexual differences. Much work remains to be done before the species are accurately known. *Thoracolopha* Turn., Proc. Roy. Soc. Qld., 1939, 13, is a synonym.

Ariathisa loxonephra n. sp.

λοξονεφρος, with oblique reniform.

♂, 30 mm. Head whitish; face grey. Palpi whitish, sparsely sprinkled with fuscous. Antennae fuscous; in male serrate with fascicles of short cilia (1). Thorax whitish sprinkled with fuscous and pale ochreous. Abdomen whitish, on dorsum faintly ochreous-tinged. Legs whitish sprinkled with fuscous; tarsi except posterior pair with dark fuscous rings. Forewings elongate-triangular, costa almost straight, apex rounded-rectangular, termen rounded, slightly oblique, whitish partly ochreous-tinged, with fuscous markings; costa barred throughout; subcostal, median, and plical streaks from base to antemedian line; antemedian sharply angled inwards on fold, obsolete towards costa; postmedian from two-thirds costa to three-fifths dorsum, sharply dentate, costal half nearly transverse, dorsal half inwardly oblique; median area between lines mostly suffused with fuscous; orbicular a longitudinal oval whitish ring with fuscous centre; reniform large, oblique, two-lobed, edged with whitish except on costal aspect, closely followed by postmedian line; beyond this fine streaks on veins; a terminal series of dark fuscous lunules, cilia fuscous with slender whitish bars. Hindwings with termen rounded, crenulate; white with grey terminal suffusion; an interrupted fuscous terminal line; cilia white.

Western Australia: Tamin in October; one specimen.

Ariathisa desertorum n. sp

desertorum, living in the wilderness.

♂, 28 mm. Head, thorax, and palpi grey or pale ochreous sprinkled with fuscous. Antennae fuscous; in male shortly and evenly ciliated (one-half). Abdomen whitish-ochreous with some fuscous scales. Legs fuscous with whitish-ochreous rings; posterior pair mostly whitish-ochreous. Forewings rather narrow, posteriorly dilated, costa straight, apex rounded-rectangular, termen slightly rounded, slightly oblique; whitish-ochreous or grey more or less suffused with fuscous; markings dark fuscous; a sub-basal line from costa to fold; a slightly dentate line from one-fourth costa to one-third dorsum; an ochreous or pinkish line or suffusion on fold; orbicular a small pale circular spot; reniform dark fuscous, irregularly oblong, its angles sometimes produced, anterior and posterior edges pale and sometimes pinkish-tinged; median line dentate, incomplete or blurred; postmedian slender finely dentate from two-thirds costa, first outwardly curved, bent inwards below middle and indented above dorsum; an apical fuscous suffusion sometimes extended towards dorsum, a submarginal series of pale spots sometimes pinkish-tinged; a terminal line; cilia grey mixed sometimes with fuscous and whitish. Hindwings with termen rounded; whitish sometimes with grey suffusion on apex and termen; cilia whitish.

South Australia: Ooldea in October (W. H. Matthews); three specimens.

Subfam. ERASTRIINAE

NARANGODES GLYCCHROA (Turn. 1904)

Micrapatetis glycychoa Turn. 1904, Trans. Roy. Soc. S. Aust., 28, 218; Hmps., 9, 453, pl. cxlvi, fig. 20.

Darwin; Thursday Island; Cape York; Cairns; Yeppoon; Duaringa.

Eublemma hapalochroa n. sp.

ἀπαλοχρoος, softly coloured.

♂ ♀, 15-18 mm. Head and thorax ochreous-brown. Palpi fuscous. Antennae fuscous; ciliations in male minute. Abdomen ochreous. Legs fuscous with ochreous rings. Forewings elongate-triangular, costa gently arched, apex pointed, termen slightly rounded, oblique; ochreous; a fuscous spot on base of costa prolonged on costal edge; a broad postmedian purple-fuscous band, edged with fuscous, and containing a small ochreous discal spot, anterior edge at two-fifths, slightly outwardly curved, posterior edge from two-thirds costa to dorsum before tornus, with subcostal and median obtuse projections; a purple-fuscous apical suffusion, broadest on costa; cilia purple-fuscous. Hindwings with termen rounded; grey; cilia pale grey.

Queensland: Thargomindah in April; two specimens received from Mr. N. Geary.

EUSTROTIA MACROSEMA (Lower 1903)

Xanthoptera macrosema Low. 1903, Trans. Roy. Soc. S. Aust., 27, 48.

Nanaguna albirena Hmps. 1909, 8, 557, pl. cxxxvii, fig. 9.

Eustrotia macrosema Hmps. 1910, 10, 605, pl. clxvii, fig. 1.

Euprora crypsichlora Turn. 1931, Proc. Linn. Soc. N.S.W., 341.

Queensland: Brisbane; Toowoomba; Bunya Mountains; Carnarvon Ranges.

E. cyclopila Turn. 1932, Trans. Roy. Soc. S. Aust., 56, 178, and *E. eremotropa* Turn., *ibid.*, 177, are allied species.

Subfam. EUTELIINAE

Phlegetonia bathroleuca n. sp.

βαθρολευκος, white at the base.

♀, 32 mm. Head grey. Palpi with second joint nearly reaching vertex, terminal joint one-half; ochreous-whitish, outer surface sprinkled with fuscous, towards base wholly dark fuscous. Antennae fuscous. Thorax greenish-grey mixed with fuscous. Abdomen fuscous; tuft fuscous-whitish. Legs fuscous; tarsi with ochreous-whitish rings. Forewings elongate-triangular, costa straight, apex rounded-rectangular, termen crenulate, slightly curved to vein 3, there bowed, and thence oblique to tornus; basal area to one-third fuscous with wavy pale transverse lines each edged with dark fuscous; thence grey; reniform narrow, constricted in middle, greenish, preceded by a dark fuscous spot, and followed by a pale suffusion, which is traversed by an S-shaped fuscous line ending in dorsum beyond middle; postmedian double, fuscous, strongly sinuate, interrupted above middle by a thick blackish streak, which curves to below midtermen; a dentate sinuate subterminal line; an apical fuscous suffusion; a fuscous tornal spot; cilia fuscous, on middle of termen barred with greenish-grey. Hindwings with termen rounded; fuscous, a basal white blotch deeply incised in middle; cilia fuscous.

North Queensland: Tully, near Innisfail, in June; one specimen.

Subfam. SARRHOTHROPIDINAE

Neocleta n. gen.

νεοκλητος, newly chosen.

Tongue well developed. Face not projecting. Palpi rather long, porrect; second joint much thickened especially at apex, where there is a broad rounded dorsal tuft; terminal joint minute, depressed. Thorax not crested. Abdomen with a minute crest on basal segment. Posterior tibiae smooth. Forewings without areole, 7, 8, 9, 10 stalked, 11 anastomosing with 12. Hindwings with 3 and 4 coincident, 2 and 5 equidistant from 3, 12 anastomosing to middle of cell.

Near *Microthripa* Hmps., 11, 226, but with 11 and 12 anastomosing, an unusual feature in this group, and with different palpi.

Neocleta empyra n. sp.

εμπυρος, scorched, carbonised.

♂. Head and thorax blackish. Palpi one and a half; blackish. Antennae dark fuscous; ciliations in male one-half. Legs dark fuscous; posterior tibiae mostly grey-whitish. Forewings suboval, costa strongly arched, apex round-pointed, termen oblique; fuscous with blackish markings; a costal streak from base almost to middle; a dorsal streak from base to two-thirds, a suffused fascia interrupted in middle connecting apices of these streaks; a fine line from apex of costal streak beneath costa to two-thirds, there bent in a right angle to below middle, where it is again angled and inwardly curved to dorsal streak; a whitish dot in disc at three-fifths; cilia fuscous. Hindwings and cilia whitish. Adapted for concealment on blackened tree trunks.

Western Australia: Merredin in September; one specimen.

Calathusa anisocentra n. sp.

ανισοκεντρος, with unequal spurs.

♀, 32 mm. Head grey mixed with white on crown; face with strong anterior tuft. Palpi 3, obliquely ascending; second joint strongly expanded towards apex, especially on dorsum; terminal joint one-fourth; grey mixed with whitish.

Antennae grey. Thorax grey. Abdomen ochreous-grey-whitish. Legs fuscous sprinkled with white; posterior pair white; posterior tibiae with outer spurs very short. Forewings elongate, narrow, posteriorly dilated, costa slightly arched, apex rounded, termen obliquely rounded; grey unevenly suffused with white except in median area; a slender fuscous antemedian line from one-fourth costa obliquely outwards to fold, there acutely angled inwards to end on dorsum near base; outer edge of median area sharply defined, indented in middle, above dorsum, and on dorsum; dark fuscous discal dots with raised scales at two-fifths and three-fifths; a third dot at four-fifths almost connected with a wavy streak from dorsum before tornus; all veins partly streaked with fuscous; a terminal series of longitudinal elongate fuscous dots; cilia grey with some fuscous bars. Hindwings with termen slightly sinuate; whitish with grey terminal suffusion broadest at apex; cilia white. This species presents some structural peculiarities of minor importance.

Queensland: Milmerran in August; one specimen received from Mr. J. Macqueen.

Calathusa englypta n. sp.

ἐγγλυπτος, indented.

♂, ♀, 28-30 mm. Head and thorax fuscous. Palpi 2; fuscous. Antennae fuscous; ciliations in male 2. Abdomen fuscous; basal segment whitish; tuft ochreous-whitish. Legs fuscous; posterior pair whitish. Forewings elongate-oval, costa slightly arched, apex rectangular, termen rounded, slightly oblique; fuscous unevenly sprinkled with whitish; markings dark fuscous; an incomplete dentate sub-basal line; antemedian line from one-third costa to one-third dorsum, indented in middle with a posterior tooth above and beneath; postmedian from before two-thirds costa to two-thirds dorsum with a posterior rectangular projection indented in middle, thence incurved, preceded by a short line from costa; fine streaks on veins in terminal area; sometimes a short whitish submedian suffusion; an irregular dentate whitish subterminal line; cilia grey with fuscous bars. Hindwings with termen slightly bisinuate; grey, towards base suffused with whitish; cilia whitish.

Queensland: Milmerran in March; two specimens received from Mr. J. Macqueen.

Subfam. ACONTIINAE

Verz., 164; Hmps., 11, 326.

The genus *Eligma* Hb. should be placed in this subfamily next to *Cacyparis* Wlk., 26, 1.572; Hmps., 11, 461.

Subfam. OPHIDERINAE

Eremnophanes n. gen.

ἐρεμνοφανης dark.

Tongue present. Face with strong rounded prominence. Palpi long, porrect, shortly rough-scaled; terminal joint long, stout, obtuse. Thorax with a strong posterior crest. Abdomen with crests on first two segments. Forewings with areole present, 10 arising from it separately. Hindwings with 5 approximated to 4, 6, and 7 connate, 12 anastomosing to beyond middle of cell.

Eremnophanes apicinota n. sp.

apicinotus, with apical mark.

♀, 20 mm. Head, antennae, and thorax dark fuscous. Palpi 3; fuscous. Abdomen whitish; crests dark fuscous. Legs fuscous. Forewings narrowly triangular, costa nearly straight, apex pointed, termen obliquely rounded, erenu-late; dark fuscous; markings blackish, obscure, partly edged with whitish; a short

white streak from base of costa edged blackish posteriorly; antemedian line from one-third costa to dorsum near middle, angled on fold; orbicular a small whitish ring; a median transverse line projecting obtusely in middle and above dorsum; reniform large, outlined with blackish, whitish towards costa; a broad white streak from costa near apex to median line, traversing reniform; cilia fuscous, extreme bases whitish. Hindwings with termen rounded; whitish with some fuscous terminal suffusion; cilia white.

Queensland: Cunnamulla in February; two specimens received from Mr. N. Geary.

***Stenoprora triplax* n. sp.**

τριπλαξ, threefold.

♂, 21 mm. Head and thorax grey sprinkled with dark fuscous. Palpi 3, second joint much exceeding face, terminal joint short, truncate; grey sprinkled with dark fuscous, lower edge white towards base. Antennae grey; ciliations in male one-half. Abdomen whitish-grey; basal crest dark fuscous. Legs fuscous sprinkled with white; anterior coxae and posterior tibiae and femora white. Forewings narrow, posteriorly dilated, costa almost straight, apex round-pointed, termen slightly rounded, slightly oblique; grey; markings and some irroration dark fuscous; a sub-basal line from costa to fold; sharply angled inwards beneath costa and outwards above fold; antemedian from one-third costa to one-third dorsum, double, slightly waved; orbicular and reniform outlined with dark fuscous, large, closely applied; orbicular semilunar with convexity anterior; reniform about twice as large, transversely oval with median constriction; a line from inner edge of orbicular below middle almost enclosing a large circle, then angled to two-thirds dorsum; a slight whitish suffusion from upper end of reniform to apex; four whitish dots on posterior half of costa; an irregular subterminal line incised in middle; a crenulate terminal line; cilia grey with fuscous bars. Hindwings with termen gently rounded; whitish; a fuscous terminal suffusion; cilia white.

Queensland: Cunnamulla in October; one specimen.

***Capelica* n. gen.**

καπηλικος, misleading.

Tongue developed. Face with strong anterior tuft of scales. Antennae in male minutely ciliated. Palpi obliquely ascending, reaching vertex; second joint moderately thickened with appressed scales; terminal joint short, obtuse. Thorax with erect expansile anterior tuft. Abdomen without crests but with first segment clothed dorsally with long hairs. Posterior tibiae hairy on dorsum. Forewing neuration normal. Hindwings with 5 well developed from near angle; 12 anastomosing with cell near base.

***Capelica oxylopha* n. sp.**

ὄξυλοφος, sharp--crested.

♂, 36 mm. Head, palpi, and thorax pale ochreous-grey. Abdomen fuscous. Legs fuscous with narrow whitish tarsal rings; posterior pair grey. Forewings elongate-triangular, costa nearly straight, apex rounded, termen nearly straight, slightly oblique; glossy ochreous-grey; a blackish dot on lower posterior angle of cell, closely followed by a whitish dot; three blackish dots on fold, and several between veins representing a subterminal line; cilia grey. Hindwings with termen rounded, grey; cilia pale grey. On casual inspection this would be taken for one of the *Melanhrinae* or *Acronyctinae*.

Western Australia: Yanchep in September; one specimen.

Oglaea prionosticha n. sp.

πριονοστιχος, with serrate lines.

♀, 38 mm. Head, thorax, and abdomen whitish-ochreous. Palpi ascending, reaching vertex; second joint thickened with smoothly appressed scales; terminal joint short, stout, pointed; whitish-ochreous, lower two-thirds of external surface of second joint blackish. Antennae fuscous, towards base whitish-ochreous. Legs fuscous (posterior pair missing). Forewings elongate-triangular, costa slightly arched, apex round-pointed, termen slightly rounded, slightly oblique; whitish-ochreous slightly brownish-tinged; a blackish triangle on mid-costa, its apex acute and reaching lower edge of cell; a blackish dot midway between this and dorsum; a sub-quadrate blackish blotch on costa before apex; a blackish dot on one-sixth costa giving origin to a slender sharply dentate fuscous line to one-third dorsum; a slender fuscous line from median triangle beneath costa almost to subapical blotch, then curved, strongly sinuate, and minutely dentate to two-thirds dorsum; a fuscous costal dot just before apex; cilia pale brownish. Hindwings with termen rounded; grey: a faint dentate fuscous postmedian line; cilia whitish-ochreous.

North-west Australia: Wyndham; one specimen received from Mr. L. J. Newman.

Artigisa anomozancla n. sp.

ανομοζαγκλος, with unusual sickles.

♂, 30 mm. Head and thorax fuscous sprinkled with whitish-ochreous. Palpi in male very long (6); terminal joint as long as second, with a dense mass of long expansile scent-hairs on inner surface; fuscous, scent-hairs and irroration whitish-ochreous. Antennae fuscous; in male bipectinate to near apex, each pectination (one and a half) terminating in a longer bristle. Abdomen fuscous; tuft ochreous-grey. Legs dark fuscous with ochreous-whitish rings; posterior pair paler. Forewings triangular, costa nearly straight, apex pointed, termen bowed on vein 3, slightly oblique; ochreous-whitish suffused with grey, veins mostly whitish; markings dark fuscous, an irregular sub-basal line from costa to fold, edged with whitish posteriorly; a small triangular spot on one-fourth costa emitting a fine waved line to one-third dorsum; orbicular a whitish dot beneath one-third costa, margined with fuscous; a broad median costal triangle; reniform immediately following this, a whitish oval ring indented posteriorly, partly edged with whitish; closely beneath and following are several irregular dots; a grey postmedian shade at one-third, angled outwards, its inner margin crenulate; a terminal series of triangular interneural dots; cilia whitish-ochreous, bases sprinkled with fuscous. Hindwings with termen rounded; fuscous, suffused darker antemedian and double dentate postmedian lines; terminal dots and cilia as forewings.

Queensland: Macpherson Range (3,000 ft.) in January; one specimen received from Mr. E. J. Dumigan.

Rhaphsa occidentalis n. sp.

occidentalis, western.

♂, ♀, 34-38 mm. Head and thorax grey, sometimes brownish-tinged. Palpi extremely long (8), porrect or ascending; laterally compressed, second joint very long, thickened with loosely appressed scales; posterior two-thirds of dorsal edge rough-scaled; terminal joint moderate, similarly thickened, its apex hidden in a terminal quadrangular tuft; grey sprinkled with fuscous. Antennae grey-whitish; ciliations in male one and a half. Abdomen grey-whitish. Legs ochreous-whitish, more or less sprinkled with fuscous; anterior pair darker. Forewings triangular, costa slightly arched, apex acute, termen sinuate beneath apex, bowed in middle, scarcely oblique; in male with a broad costal fold beneath extending to middle

and enclosing a tuft of scent-hairs; grey, sometimes brownish-tinged except in terminal area; markings and some sparsely scattered scales fuscous; a dot in disc at one-fourth, rarely obsolete; two discal dots in middle, placed transversely, rarely white-centred; sometimes an obscure line from four-fifths costa to two-thirds dorsum; a terminal series of dots; cilia ochreous-whitish with a grey basal line, apices sometimes fuscous. Hindwings with termen rounded; grey, towards base whitish-grey; a whitish subterminal line edged on both sides with grey; cilia as forewings but without fuscous apices.

Western Australia: Margaret River in October and November; two male and five female examples.

Zethes hemicyclophora n. sp.

ήμικυκλοφορος, carrying a half-circle.

♀, 63 mm. Head grey, mixed on crown with fuscous. Palpi long (5), porrect; second joint greatly expanded with rough scales towards apex; terminal joint short, stout, truncate; grey-whitish sprinkled with fuscous. Antennae grey-whitish; in female with minute cilia and long bristles (one and a half). Thorax grey; anteriorly fuscous. Abdomen pale grey sprinkled with fuscous. Forewings triangular, costa slightly arched, apex rounded, termen excavated beneath apex, with rounded median prominence; grey; markings and a few scattered scales fuscous; a basal costal spot; an antemedian band, towards costa grey except in margins, containing a small white semi-circular crescent; anterior edge of band curved, dentate, from one-fourth costa to one-third dorsum, posterior edge from two-fifths costa to mid-dorsum, strongly sinuate; two median blackish discal dots placed transversely; postmedian line slender, sinuate, dentate, from three-fifths costa to four-fifths dorsum; a wavy line of submarginal dots, the second from costa larger; cilia grey, apices dark fuscous. Hindwings with termen dentate, rounded; colour as forewings; slender median and postmedian lines not reaching costa; an interrupted dentate subterminal line ochreous with dark fuscous edge thickened near tornus; submarginal dots and cilia as forewings.

Queensland: Macpherson Range (3,000 feet) in January; one specimen received from Mr. E. J. Dumigan.

Subfam. HYPENINAE

Gn. Delt. & Pyr., 41; Hmps. 1895, Fauna Brit. Ind., Moths, 3, 98; Meyr. 1927, Rev. Hbk. Brit. Lep., 164.

HYPENODES

Gn. Delt. & Pyr., 41.

I think *T. demonias* Meyr., Tr. Ent. Soc., 1902, 39, and *T. asthenopa* Meyr., *ibid.*, 40, ascribed to *Tipasa* Wlk. should be referred here, and with them the species ascribed by Hampson, *ibid.*, 95, 97, to *Chusaris* Wlk. 1858, Cat. 16. *Hypenodes* has normally 8, 9, 10 of forewings stalked, but 9 may be absent.

HYPENODES COSTISTRIGALIS Stph.

Meyr. 1927, *ibid.*, 165.

Western Australia: Yanchep in September. A European species, which occurs also in Australia; no doubt artificially introduced.

HYPENODES PORPHYRITICA Meyr. 1902

Meyr. 1902, Trans. Ent. Soc., 40.

South Australia: Wirrabara.

HYPENODES MICROPA Meyr. 1902

Meyr. 1902, *ibid.*, 41.

Queensland: Brisbane. New South Wales: Sydney.

Hypenodes ptocas n. sp.

πτωκας, shy.

♂, 16 mm. Head and thorax grey. Palpi 3; grey. Antennae grey; in male shortly ciliated (1). Abdomen pale grey. Legs fuscous with whitish tarsal rings. Forewings elongate-triangular, costa nearly straight, apex pointed, termen slightly rounded, oblique; grey; markings fuscous, obscure; a series of minute costal dots, towards apex of wing separated by ochreous-whitish dots; twin discal dots at three-fifths; a terminal series of dots; cilia grey. Hindwings with termen rounded; pale grey; cilia pale grey.

New South Wales: Ebor in December; two specimens.

Camptocrossa n. gen.

καμπτοκροσσος, with bent margin.

Tongue developed. Palpi long, straight, obliquely ascending, second joint very long, thickened with scales, smooth beneath, but forming a rough ridge above, terminal joint short, stout, acute. Legs smooth. Forewings without areole, 2 from two-thirds, 3, 4, 5 separate, 4 from angle, 7, 8, 9, 10 stalked, 11 connate. Hindwings with 2 from middle, 3 and 4 connate, 5 from well above angle (one-third), 6 and 7 stalked. Type, *N. selenotypa*. Near *Philogethes* Turn, 1930, Proc. Roy. Soc. Qld., 149, from which it differs in the absence of the areole; also near *Camptocheilus* Hmps. from India, but lacks the tuft on terminal joint of palpi, and 5 of the hindwings does not arise from angle.

Camptocrossa selenotypa n. sp.

σεληνοτυπος, moonstruck.

♂, 20 mm. Head, thorax, and abdomen fuscous. Palpi 5, second joint strongly expanded towards apex; fuscous. Antennae fuscous; in male with minute ciliations and short bristles (one-half). Legs fuscous with whitish tarsal rings; posterior pair mostly whitish. Forewings triangular, costa straight, apex rounded, termen angled on vein 4, concave above and straight beneath angle; fuscous partly mixed with ochreous-whitish; a semilunar patch on costa from middle to near apex, mostly ochreous-whitish, strongly margined with dark fuscous; a suffused transverse dark fuscous line at one-third; an oblique suffused dark fuscous line from middle of semilunar patch to mid-dorsum; on its outer edge a whitish dot above dorsum, and a whitish line beneath costa; a series of whitish costal dots from middle to apex; a subterminal line of whitish dots edged with dark fuscous posteriorly; cilia fuscous. Hindwings with termen crenulate and with a short tooth on vein 4; colour and markings as forewings but with costal and median areas largely suffused with white, a subterminal dark line edged posteriorly with whitish dots; subterminal dots and cilia as forewings.

North Queensland: Atherton Plateau (Lake Barrine) in June; one specimen.

Camptocrossa acrocausta n. sp.

ακροκαυστος, scorched at the apex.

♂, 18 mm. Head and thorax pale grey. Palpi 4; pale grey with some fuscous sprinkling, and a penultimate ring on terminal joint; fuscous. (Antennae missing.) Abdomen fuscous-brown; apices of segments and tuft pale grey. Legs whitish-ochreous. Forewings triangular, costa straight, apex rectangular, termen angled on vein 4, concave above, straight beneath; ochreous-whitish sprinkled with grey; an oblong apical blotch from apex to mid-termen, fuscous-brown edged with whitish; three or four fuscous dots on costa; some brown irroration above tornus; a crenulate dark fuscous terminal line; cilia ochreous-whitish, on blotch mostly fuscous. Hindwings with termen rounded; ochreous-whitish, suffused with

purple-brown towards costa and termen; a faint postmedian line; a crenulate fuscous terminal line; cilia ochreous-whitish.

North Queensland: Tully, near Innisfail, in June; one specimen.

***Esthlodora acosmopa* n. sp.**

ἀκοσμοπος, unadorned.

♀, 18 mm. Head, antennae, thorax, and abdomen grey. (Palpi missing.) Legs fuscous with whitish tarsal rings. Forewings elongate-triangular, costa straight to near apex, apex pointed, termen strongly bowed in middle, above concave, beneath straight; grey with fuscous markings; a slender, outwardly curved line at one-fourth, slightly dentate; an outwardly oblique blackish mark on midcosta, joined at an angle by a slender line to mid-dorsum; before this angle a small circle representing orbicular, and beyond it another representing reniform; a triangular mark on costa before apex, its lower part blackish, edged by a whitish line; from this mark proceeds a slender sinuate slightly dentate line to three-fourths dorsum, and another to tornus; a terminal line; cilia fuscous, bases whitish-ochreous. Hindwings with termen rounded, broadly excavated at tornus; grey; a blackish discal dot; three obscure wavy transverse lines; cilia grey.

Queensland: Brisbane; one specimen.

Fam. LASIOCAMPIDAE

***Aprosepta* n. gen.**

ἀπροσκεπτος, unforseen.

Eyes smooth. Palpi short, not exceeding frontal tuft, densely hairy. Forewings with 2 from near middle, 3 from three-fourths, 4 and 5 approximated from angle, 6 from upper angle connate with 7, 8, which are long-stalked, 9 and 10 long-stalked, 11 from two-thirds. Hindwings with 4 and 5 approximated from angle, 6 and 7 connate from upper angle, 11 well developed, running not far from base into 12, which is widely separated from cell; no pseudoneuria. The neuration differs from that of any genus known to me, but comes nearest to that of *Perna* Wlk., 5, 1,127, which has a much larger accessory cell in the hindwing, while that of *Endromis*, which I refer to the Lasiocampidae, is still smaller.

***Aprosepta amblopis* n. sp.**

ἀμβλωπις, dull.

♀, 40 mm. Head ochreous. Palpi pale fuscous. Antennae fuscous; pectinations in female one and a half. Thorax pale fuscous. Abdomen dark fuscous; bases of segments whitish. Legs pale fuscous. Forewings elongate-triangular, costa nearly straight, apex rounded, termen long, rounded, oblique; pale fuscous; markings slightly darker, obscure; a subcostal spot at one-third and another before two-thirds; a sinuate suffused line from three-fourths costa to three-fourths dorsum; a roughly parallel similar subterminal line; cilia pale fuscous. Hindwings short, termen rounded; colour as forewings, but without markings.

Queensland: Milmerran in January; one specimen received from Mr. J. Macqueen.